Professor Hazen in New Haven, the latter showed such an earnest interest in meteorology as to justify recommending him to the position of computer in the study room, which was then being organized by Gen. W. B. Hazen, the Chief Signal Officer, for the purpose of developing the scientific work of the Bureau, as a necessary adjunct to its important practical work. After his entry, May, 1881, into the meteorological work of the Signal Service, Professor Hazen took a prominent part in this field. The works specially assigned to him, such as the deduction of altitudes by railroad levels, the study of the psychrometer, the proper exposure of thermometers, the study of thunderstorms, annual courses of lectures on meteorology, were by no means sufficient to absorb his energies, and we find him writing and publishing on other subjects, such as barometric hypsometry and the reduction to sea level, the testing of anemometers, the study of tornadoes and the theories of cyclones, atmospheric electricity, balloon ascensions, the influence of sun spots and the moon, the danger lines of river floods, the sky glows and the eruption of Krakatoa. His enthusiastic advocacy of the importance of the balloon to meteorology was very highly appreciated. His five ascensions (1886, June 24–25, 1887, June 17 and August 13, 1892, October 27), undoubtedly gave very accurate temperatures and humidities. After the death of General Hazen, and during the administration of General Greely, the computers of the study room became junior professors at a higher salary, and were assigned to official duties of a broader aspect. In the course of such duties, Professor Hazen frequently took his turn as forecast official (beginning with October, 1887), and as Editor of the MONTHLY WEATHER REVIEW (beginning with December, 1888), while also acting as assistant in the Records Division. In July, 1891, in accordance with the terms of the transfer to the Department of Agriculture, he was appointed one of the professors of meteorology in the Weather Bureau, where he was at once assigned to regular and congenial duties in the Forecast Division.

Having shown that the Hazen thermometer shelter was much better than the large, close double-louvered one formerly used, his form was adopted by the Weather Bureau, in 1885, and still remains in use. His experimental work with the sling psychrometer and dew-point apparatus was executed with great care and refinement, but his resulting psychrometer formula differs from those in current use, in that he rejected the important term depending on the barometric pressure. Among his larger publications were: The Reduction of Air Pressure to Sea Level and The Climate of Chicago.

Professor Hazen was a frequent contributor to meteorological and other scientific journals. He was one of the supporters of Science during the years 1882–1889, and of the American Meteorological Journal, 1884–1896. He also published independently his Meteorological Tables and The Tornado, and possibly other works. A complete list of his published writings would include several hundred titles.

It must be confessed that a peculiar temperament sometimes led him to beliefs and statements in scientific matters entirely untenable at the present day, but to which he adhered with such pertinacity that to some he occasionally appeared obstinate and headstrong. This was simply a result of the intense earnestness of his own convictions which so completely absorbed his mind that there was no place for further considerations. However, the amiability of his character always prevented any enduring unpleasant feeling between himself and his associates.

In addition to his work in meteorology, Professor Hazen, like his master, Professor Loomis, was greatly devoted to the study of family history and genealogy, and it is understood that his collections in that line are in proper shape for the publication of a large volume. Certainly the wide-spread family to which he belonged includes very many distinguished names in theology, literature, commerce, and military matters. A great tenacity of purpose, independence of character, boldness in the defence of personal convictions and energy of execution are prominent characteristics of all the families bearing the name of our departed colleague. Himself unmarried, he cared lovingly and dutifully for relatives who depended on him. His heart was as many-sided as his intellect.

DEATH OF GEN. A. A. TILLO.

We regret to announce the death of Gen. A. A. Tillo at at St. Petersburg on January 11, 1900.[1]

General Tillo has, during the past twenty-five years, published numerous works, both large and small, on meteorological, magnetic, and other branches of terrestrial physics. We owe to him an extensive work on the distribution of atmospheric pressure over the entire Russian domain. He was vice president of the Russian Geographical Society, and his sudden death, at the age of 61, is a great loss to science.

WINTER KILLING OF FRUIT TREES.

In the November report of the Ohio section, Mr. J. Warren Smith communicates some of the replies to letters of inquiry sent out by him in order to collect statistics relative to the injury to fruit trees by cold winter weather. Mr. H. W. Gilbert, of Portage County, says:

I watched my peach trees pretty closely and did not discover any serious trouble until the cold spell in February. Then the cambium layer turned very brown and the wood was brown clear through and very brittle. The leaves, buds, and bark seemed bright, but the cambium was brown and grew darker all the way down until about a foot from the ground where the tree seemed to suffer the greatest damage. * * * I immediately cut 300 especially fine 3-year old trees off just above the snow line, leaving about 6 or 8 inches of bud wood that was apparently uninjured, thinking they would sprout, but they did not. * * * * I have just finished pulling up the roots and they are all bright, but not more than one-third had any sprouts on the roots.

In an orchard of 700 2-year old trees, I cut off about 100; they sprouted all right. The remainder of the orchard I cut back about the entire growth of the previous year and they have done finely; a few of the hardiest I left without trimming as an experiment, they look sickly and have made slender growth.

All trees that I have examined this fall have made but little new growth, but have deposited new wood of very uncommon thickness on the larger limbs and trunks, thus demonstrating that we can not determine by thickness of the layers of wood just how the trees have flourished during the year.

FARMERS' BULLETINS.

From a paragraph in the November report of the Mississippi section we infer that the Section Director, Mr. H. E. Wilkinson, has obtained from the Secretary of Agriculture a sufficient number of Farmers' Bulletin No. 89, On Cow Peas, to furnish a copy to each of the Weather Bureau crop correspondents and voluntary observers. This admirable arrangement is one that can be heartily recommended to all section directors. It is proper to add that if any section director can compile a short practical bulletin of from four to sixteen octavo pages on any subject of importance to the agriculturists of his State it will probably be acceptable to the Chief of the Weather Bureau and be recommended by him for publication as a farmers' bulletin.

[1] We assume that this is new style, as it has been widely stated that the new or European style of reckoning will be introduced, officially, into Russia during the present year.